

**Further Particulars – up to 4 lectureships in the
Lancaster Environment Centre (LEC)**

**Lectureships in Sustainability
Ref: A716**

Introductory remarks

The Lancaster Environment Centre (LEC) is making a major investment in sustainability research, with an emphasis on social and inter-disciplinary science. This initiative is part of our mission to become a key global player in *Sustainability Science*, which focuses on the search for solutions to major global challenges while going beyond traditional disciplinary boundaries.

We aim to advance the international agenda on *Sustainability Science*, an emerging problem-driven field that is concerned with addressing practical challenges caused by climate change, habitat and biodiversity loss, and poverty among others. Sustainability Science also investigates the root causes of problems by uncovering new knowledge or combining current knowledge from more than one discipline in a holistic way to enhance understanding of sustainability. We believe LEC is ideally placed to provide real leadership, vision and excitement, but can draw together widespread expertise and enthusiasm across the Lancaster campus and with our international research partnership network.

Ideal candidates will apply social science approaches to sustainability research in a way that addresses the interactions between natural and social systems and identifies pathways to meeting human needs and dignity whilst conserving the planet's life-support systems. We welcome candidates whose research promotes the design of institutions, policies and practices that support sustainable development and conservation and links knowledge with actions. In particular, we seek exceptional early-career researchers who address grand challenges of global environmental change, including: climate change mitigation and adaptation; governance of social-ecological systems; vulnerability and resilience; sustainable development and poverty alleviation; food security; demography, migration and consumption; urban development; land-use change and biodiversity; and the sustainable management of natural resources. We seek future research leaders from across the social and economic sciences, including both quantitative and qualitative approaches, at local to global scales.

LEC offers a unique platform for developing sustainability science research. Our large world-class community has established strengths in inter-disciplinary global change research. Applicants will be welcomed into relevant inter-disciplinary research themes, but we are also interested in talented individuals demonstrating leadership in their own subject area. Several new staff have already been appointed that are excited by this vision and are consistent with the mission. We seek excellent, dynamic staff, stimulated by the prospect of working in a leading inter-disciplinary Centre, renowned for its teaching and research.

The importance of research focused on sustainability is reflected in various key research council, governmental and international funding programmes (e.g. Living with Environmental Change, Global Uncertainties, Energy, Sustainable Livelihoods, the International Council for Science (ICSU), International Social Science Council (ISSC) and the Belmont Forum FutureEarth programme). However, it is increasingly acknowledged that the social dimensions of

sustainability have been underplayed in both policy and research terms, with an interdisciplinary focus on social sustainability emerging alongside more established environmental and economic framings. Social sustainability is concerned with the underlying societal drivers and consequences of environmental change, with sustaining health and well-being, the pursuit of progressive social innovation and addressing social inequalities. It presents a wide ranging agenda that links between funding programmes and sits at the centre of global challenges for the 21st century.

We seek an effective balance between research and teaching. We currently have a very successful undergraduate programme in Geography with a large cohort of UK students each year. These posts will contribute teaching to that programme, whilst also helping us develop our international PG and UG programmes. We wish to recruit staff who will have the explicit remit to deliver exciting and up-to-date teaching in the human geography/social sciences area, whilst having a research focus on sustainability science.

Early teaching responsibilities will be to develop new and engaging contributions to our large and successful undergraduate teaching in broad areas detailed below. We also wish to establish further post-graduate provision and this will be discussed and developed collectively, depending on the range of expertise of the staff we appoint in this recruitment round and our existing strengths.

Examples of key areas of teaching need include, economic and political geography (e.g. of waste, agri-food and rural development; geopolitics of energy and resources); global health; social sustainability (e.g. wellbeing; health; social movements; gender); globalisation; urban geography/development; population (migration; mobility, population and development/environment; quality of life). Candidates should propose how their distinctive expertise might contribute to these and other teaching consistent with the broad scope defined here.

Ideally we would have candidates on our books in the 2013/14 academic year, embedding with their research and preparing some teaching (e.g. a new module) which will be ready to be delivered in the 2014/15 academic year (which starts October 2014 in the UK academic calendar). Some tutorial, dissertation supervision, mentoring, fieldtrip teaching support activities will be needed in 2013/14 academic year.

Lancaster University, Lancaster and the Lancaster Environment Centre

Lancaster University is one of the top research-led universities in the United Kingdom. In the UK Government's 2008 Research Assessment Exercise, over 90% of the research at Lancaster was found to be world leading or internationally significant. Lancaster's performance in successive research assessment exercises has placed it in the top 10 universities in the UK, and this is reflected in an increasing portfolio of regional, national and international research partnerships that advance core disciplinary knowledge and address key societal issues.

Lancaster is a beautiful historic city in north-west England, close to two national parks (the English Lake District and the Yorkshire Dales) and surrounded by beautiful countryside – the Lune Valley, the Trough of Bowland and the Fylde coast. The larger cities of Manchester and Liverpool are an hour away, while efficient high speed train connections and motorways make London, Glasgow and Edinburgh easily accessible. Manchester and Liverpool both have major international airports.

Lancaster has a long and renowned tradition of working on the environment in a multi-faceted and collegiate way. Now *Environment* is one of the key strategic priorities for the University, with the Lancaster Environment Centre (LEC) providing the focus. LEC currently comprises 65 academic staff, ~150 PhD students, ~100 Masters students a year and about 50 research staff. In LEC our mission is to:

- Address the world's most important environmental and sustainability issues, with a strong commitment to research excellence, inter-disciplinarity and genuine and long-lasting international partnerships;
- Conduct excellent research across the fundamental-applied spectrum, including research with real impact that links directly with end users;
- Provide an inspiring and challenging teaching environment, where students get additional benefits of being in a large and interdisciplinary setting. Students at LEC should be able to understand the relevance of their discipline in the context of broader academic approaches, and the world outside academia;
- We aspire to being bigger than the sum of our parts, and making use of the broad range of disciplines. We regard our breadth as our strength.

Research and teaching in LEC is conducted by a community of colleagues with diverse backgrounds including: anthropologists, chemists, earth-atmospheric scientists, ecologists, geographers (human/physical), geophysicists, hydrologists, plant scientists and sociologists. Qualitative and quantitative approaches, spanning ethnography, in-depth interviews, large scale surveys, laboratory, field, modelling, policy and strong stakeholder/end-user engagement are all employed. Our research builds on drawing expertise together from strong core disciplines to address 'grand challenges' – Water, Food Security, Energy, Sustainability, Chemicals Management, Use of Natural Resources, Biodiversity and Ecosystem Functioning. Hence, a driving aim of LEC's research is to assemble and optimize cross-disciplinary research teams, by combining areas of disciplinary excellence, to address 21st century environmental challenges.

The LEC internationalization strategy aims to channel these research foci towards a wide range of opportunities for engaging with research, teaching and business in a global arena. Through its Enterprise and Business Partnerships (EBP), LEC undertakes a wide range of projects in partnership with business and industry. Academic research is complemented by LEC's strategic alliance with the Natural Environment Research Council's (NERC) Centre for Ecology and Hydrology (CEH), a government laboratory, which is co-located in the LEC complex. Many partner companies based in LEC add further to the sense of community and expertise. LEC engages with many other 'units' on campus. Examples include: Sociology, Law, Politics and Lancaster Institute for Contemporary Arts (environment and society); Lancaster University Management School (sustainability; environment and business); Engineering and Physics (pollution control; energy; nanomaterials); Computing and Communications (Informatics; sensors and networks); School of Health and Medicine (environment and health). In total, we therefore have a community of ca. 450 staff, researchers and partners engaged in work on 'environment', making us one of the largest multi-disciplinary Environment Centres.

LEC has many research highlights. We cover a broad spectrum of research, from pure to applied, and our research is funded by a wide range of funders including RCUK, Defra, EU and the private sector. Major recent/current research grants in LEC currently focus on issues such as the

reduction of water pollution from agriculture (Defra and the Environment Agency), carbon sequestration in grasslands (BBSRC), nutrient dynamics in groundwater-fed rivers (NERC); sustainable urban transport (EPSRC); measurement and modelling of persistent pollutants (Defra), knowledge exchange in animal disease management (ESRC-BBSRC-NERC), the impact of urban design on urban air quality (EPSRC), sustainable practices in energy and water consumption (ESRC-Defra-Scottish Government), poverty alleviation (ESRC-NERC-DfID) and land use practice leading to the reduction of wild fires in Amazonia (the Darwin Initiative). We are also leading a major new project on Global Eco-Innovation with Liverpool University that has seen 50 new PhD registrants collaborating with businesses and researchers and are part of the new ESRC North West Doctoral Training Centre with Manchester and Liverpool. Professor Gordon Walker and colleagues in Sociology have recently been awarded major funding to establish a major Energy Demand research centre. We have major international research links and strategic partnerships with China, Brazil and Africa, which provide exciting opportunities and resources to support these posts.

Teaching

LEC offers a wide range of high-quality degree schemes at both undergraduate and postgraduate levels. The undergraduate portfolio includes schemes in Geography (BA/BSc Geography, BSc Physical Geography, BA Human Geography), Environmental Science, Earth and Environmental Science, Environmental Change and Sustainable Development, Ecology and Conservation, Environmental Biology, and LEC staff also contribute substantially to the BSc Biology scheme (delivered in conjunction with the department of Biomedical and Life Science). All schemes have high entry grades (AAB or ABB at A level) and have received excellent ratings in recent National Student Surveys. Since the formation of LEC we have created a new integrated first year course taken by all LEC undergraduates, have increased flexibility within other years of the degrees and, in conjunction with the Enterprise and Business Partnerships Unit, have broadened opportunities for work experience. LEC runs some 14 taught postgraduate programmes including the MRes in Science of the Environment, the MSc in Resource and Environmental Management, the MSc in Ecology and the Environment and the MA/MSc in Environment and Development. All schemes offer an integrated programme of taught modules and require a substantial independent dissertation. A new two year International Masters in Environmental Science and Technology is building on our strong links with China developed through the UK-China Bridge project. PhD students are recruited in all parts of LEC with panel supervision the norm and many students focusing on challenging interdisciplinary projects with supervision that spans the Environmental, Biological and Social Sciences.

Further details about the posts

Successful candidates will need excellent research outputs for the forthcoming national research assessment (REF). They should also display demonstrable potential for research development, a clear capacity for independence and emerging levels of research visibility. Experience in generating external income to support research activity is highly desirable, whilst a clear strategy for doing so is key for early career appointees. All appointees will need to contribute to core teaching and administration; we will work with junior staff to develop a clear probationary agreement and trajectory.

Further information

Details of LEC's activities can be found on the Departmental web site: <http://www.lec.lancs.ac.uk/>, and additional information about Lancaster University can be found at: <http://www.lancs.ac.uk/>. *However, please note that the LEC web site is being re-structured and is not fully up to date.* Informal enquiries about LEC and these posts should be addressed to:

Professor Kevin Jones (LEC Director), k.c.jones@lancaster.ac.uk (+44 (0) 1524 510230);

Professor Phil Barker (LEC Associate Director), p.barker@lancaster.ac.uk (+44 (0) 1524 510262).